

Date: Wednesday, 7/4/2007 2:44:59 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : AFT CAP
Job Number : 33289	
Estimate Number : 10312	
P.O. Number	Part Number : D2646
This Issue : 7/4/2007 S.O. No. :	Drawing Number : D2646 REV C
Prsht Rev. : NC	Project Number : N/A
First Issue : 1/1 Type : PURCHASED PARTS	Drawing Revision : C
Previous Run : 33288	Material :
Written By :	Due Date : 7/20/2007 Qty: 30 Um: Each
Checked & Approved By : <u>18 07.07.04</u>	
Comment : Est: G 05.08.22 Hole size revised in Step 5 KJ/JLM	
Est Rev: H Changed Inserts 07-02-19 JLM	
est rev I changed inserts 07.06.11 EC	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

PG

PURCHASING



Comment: PURCHASING

Issue P/O: 4101

1-Spin as per Dwg D2646

2-Material release note required

CL 07/07/04(30)

2.0

D2646P

Aft Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 30.0000 Each(s)  
 AFT CAP

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive &amp; Inspect for Transit Damage

Ensure Material Release Note is attached

CL 7/7/1830

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Inspect dimensions as per Dwg D2646

CL 07/07/19CL 07/07/19  
(30)

5.0

SMALL FAB 1

SMALL &amp; MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1


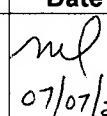

1-Drill using DT8026 as per Dwg D2646.

2-Open holes to .297 as per Dwg D2646.

ml 07/07/25 (x29)PTO

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2646 PAR #: N/A Fault Category: Prod - Sm Eab NCR: Yes No DQA: 1 Date: 07.08.13  
 QA: N/C Closed: 1 Date: 07.08.21

NCR: <u>33289</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/07/25	5	There is a chip on the edge of one Hole on one D2646 R.C. Hunting Error		1. Scrap one D2646 No replace	 07/07/25	En 07/07/27	 07/07/27	En 07/07/27

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CAP

Job Number: 33289

Part Number: D2646

Job Number:



Seq. #:

Machine Or Operation:

Description:

3-Debur

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Er 07/07/27 (29) counter

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

sl 07-08-01 (29)

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M 105068 (29)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

m-d 07/08/02 (29X)

10.0

ALS71032130

Insert



Comment: Qty.: 2.0000 Each(s)/Unit Total: 60.0000 Each(s)

INSERT

Batch:

M 102478

m-d

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Install inserts as per Dwg D2646

m-d 07/08/11 (29X)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Er 07/08/13 (29) counter

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

finishing

m-d 07/08/13 (29X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 7/4/2007 2:44:59 PM

User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CAP

Job Number: 33289

Part Number: D2646

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*1A07.08.13*

Job Completion



*C207/08/13*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

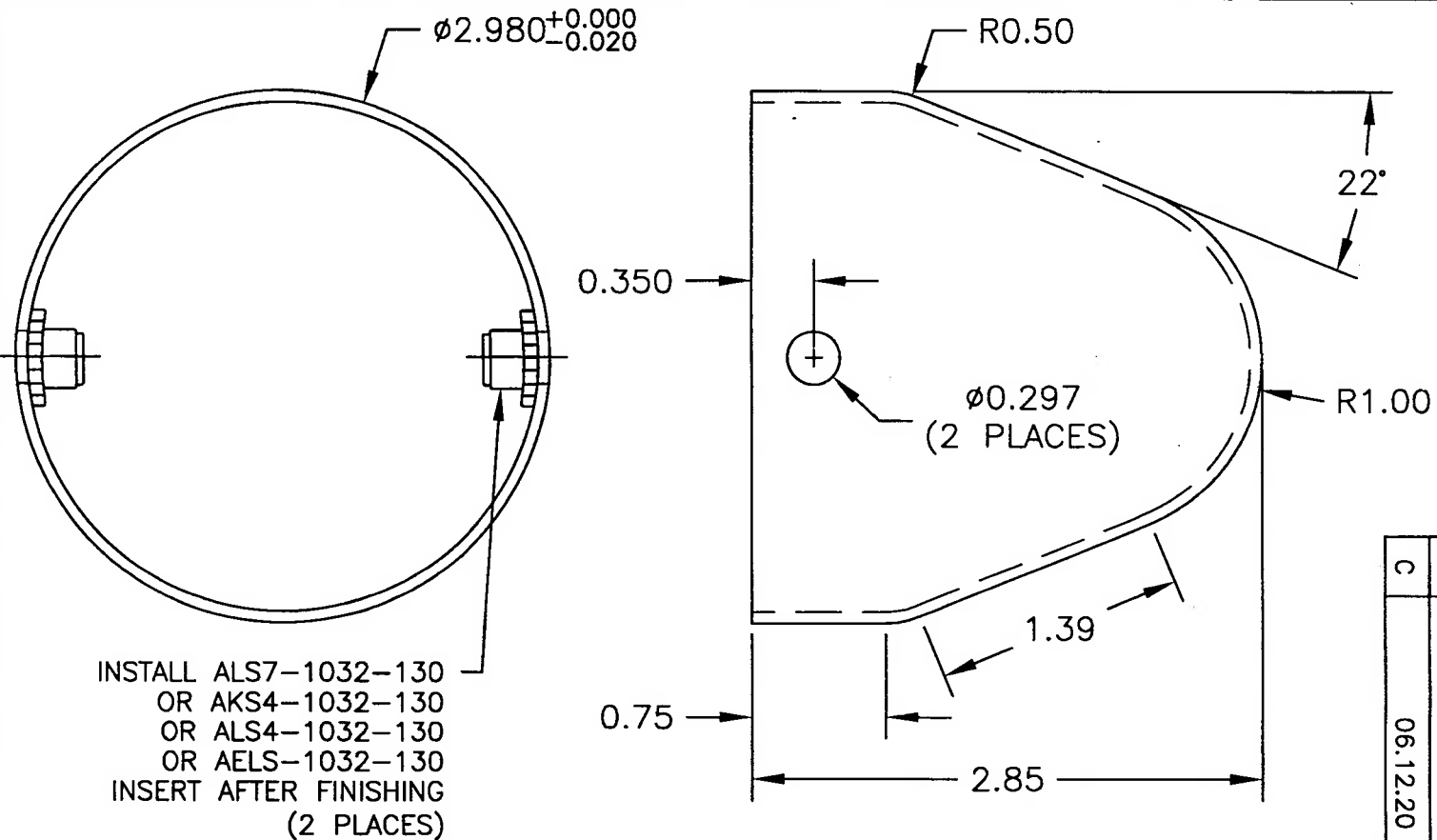
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**

DESIGN	DS	DRAWN BY	DART AEROSPACE USA, INC.	REV. C
CHECKED		APPROVED	DRAWING NO.	SHEET 1 OF 1
DATE	06.12.20		TITLE	SCALE
			AFT CAP	1:1
A		97.03.25	NEW ISSUE	
B		05.04.01	CHANGE TO CLOSED INSERTS	
C		06.12.20	CHANGE TO OPEN ENDED INSERTS	



**D2646 AFT CAP**

- 1) MATERIAL: ALUMINUM 1100-0 0.063 THICK (QQ-A-250/1)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED  
07.02.20

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 33289



# Sieg's Manufacturing Ltd.

Metal Spinning and Fabricating

6236 - 205 STREET, LANGLEY, B.C. V2Y 1N7

TELEPHONE: (604) 530-7455 • FAX: (604) 530-7490

## INSPECTION REPORT

Date: July 17

Customer: Dart Aerospace

Packing Slip: 31391

Part#:	Quantity	Material	Check holes	Debur edges	Insp. By.
D2646 Rev C	50	.0631100	N/A	✓	AK

Notes:

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Material Certification Attached: Yes



**Alcoa Mill Products**1480 Manheim Pike  
Lancaster Pa 17601**Certification of Test Results**

SOLD TO

COPPER & BRASS SALES INC  
22305 WEST ELEVEN MILE ROAD  
SOUTHFIELD, MI 48034

SHIP TO

COPPER & BRASS SALES INC  
6555 E. DAVIDSON  
DETROIT, MI 48212

CERT NO 0000630431

DATE 2/12/2005

SKID NO 350025

SKID WGT 6,654

PAGE 1 OF 1

ORDER NO	LS8335	PO NO	CB2548				MILL FINISH
ITEM NO	1	PART NO	050393-8				NON ANODIZE QUALITY
ALLOY	1100	TEMPER	O	FORM	COIL		OUT: STANDARD MILL FINISH
GAUGE	.06300	WIDTH	48.0000	LENGTH	0.0000		IN: STANDARD MILL FINISH
							NOT EMBOSSED

LOT: 245473 COIL: A01 DROP: 04M0509

INGOT	SI	FE	CU	MN	MG	CR	NI	ZN	TI
*US04111	0.14	0.52	0.13	0.01	0.01	0.01	0.01	0.01	0.01

HEAD ULTIMATE STRENGTH 13.2 KSI  
TAIL ULTIMATE STRENGTH 13.5 KSI  
HEAD YIELD STRENGTH (OFFSET = .2%) 5.2 KSI  
TAIL YIELD STRENGTH (OFFSET = .2%) 5.1 KSI  
HEAD ELONGATION (G.L. = 2 IN) 33.5 %  
TAIL ELONGATION (G.L. = 2 IN) 32 %\* AS REPORTED BY SUPPLIER  
MECHANICAL PROPERTIES ACCORDING TO ASTM B-557-02aMECHANICAL AND CHEMICAL PROPERTIES MEET THE REQUIREMENTS OF:  
USME B209 1100 O, AMS 4001H 1100 O,  
ASTM B209-04 1100 O, AMS-QQ-A-250/1 1100 OCERTIFICATION OF TEST RESULTS SHALL NOT BE REPRODUCED EXCEPT IN FULL  
\*\* END OF CERTIFICATION \*\*

*Attn: QA Dept*

Date	9-10-05
Cust.	Siege
W/O #	139277
Qty.	2036 Pcs.
<input checked="" type="checkbox"/> Size	<input checked="" type="checkbox"/> Special Instructions
<input checked="" type="checkbox"/> Part #	<input checked="" type="checkbox"/> Alloy <input checked="" type="checkbox"/> Heat/Lot
These test reports are for material shipped on your PO # 21694	
From Copper & Brass Sales	
Quality Representative	
Customer Part #	

This document certifies the material above has been tested in accordance with applicable specifications described herein and has met those requirements. The material is subject to terms and conditions on the Alcoa sales order agreement.

Authorized By:

JEFF KREADY, LAB SUPERVISOR

